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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,775	01/17/2002	Peter Weissman	2001-1522A	2673

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EXAMINER

MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,775

Applicant(s)

WEISSMAN, PETER

Examiner

Sanza L McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14-17, 21, 22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 4-13, 18-20 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4-6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 1, the phrase "obtainable" renders the claim indefinite because it is unclear whether the polymer is or is not obtained from a monomer comprising at least one activated unsaturated moiety or if the polymer is or is not obtained by the reactions in claims 4-6.

Claim Objections

4. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding claim 2, it is unclear how component (a) and component (c) can be the same. According to claim 1 component (a) is a monomer diluent and component (c) is a polymer or oligomer, which are not the same types of components.

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 3, 14-17, 21-22, and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Beckley et al ((US 6,451,951 B1)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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Beckley et al teaches semi-telechelic nitrogen functional oligomers, wherein said oligomer can be used as dispersants for pigments in radiation curable formulations. The oligomer has the general formula found in column 2, lines 5-10 and 45. This appears to anticipate the oligomer of claim 3. Beckley et al teaches said oligomer may be liquid or solid, wherein the preferred form is liquid having a viscosity from less than 10,000 cps, preferably less than 1000 cps—column 7, lines 40-42—and can have number molecular weights from 1820 and 1553 as seen in the oligomer preparation examples—see table 3.2. The number average molecular weights taught in the examples appears to anticipate claims 14-16, and the preferred viscosity appears to anticipate claim 17. In addition, Beckley et al teaches that the polydispersity in the range of 1 to 5, preferably from 1.5 to 3. These teachings appear to anticipate at least one property for (c), i.e., (w) to (z), in claim 1. When used in radiation curable formulations, said formulations can comprises ethylenically unsaturated materials such as monomers and oligomers in the presence of a suitable initiator. In addition said formulations can comprise pigments—see column 8, lines 21-35. This appears to anticipate claim 21. Per example 5, Beckley teaches a photocurable pigment composition. Said pigment formulation comprises 10 g of semi-telechelic nitrogen oligomer, 3.2g of a pigment, 10 g of a monomer diluent represented by trimethylolpropane triacrylate, and 1.0 g of a photoinitiator, wherein the reactive diluent is less than 50% of said formulation and comprises no VOC' s, and once cured using actinic radiation became a solid tack-free film. Thus it appears claims 1, 22 and 24-25 are anticipated by the reference.

7. Claims 1, 14-16, and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerr et al (EP 0 187 045).

Kerr et al teaches radiation curable macromonomers for printing inks. Said ink comprises from 5 to 80% of a macromonomer containing a polymerizable unsaturated

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end group, from 20 to 95% of a reactive diluent, from 1 to 50% a colorant, and from 0 to about 20% a free radical initiator, wherein said ink does not require the use of organic solvents—pages 5 and 6. The macromonomer is based on vinyl aromatic monomers, has a polymerizable ethylenically unsaturated group, and a number average molecular weight of about 2,000 to about 50,000. Said macromonomer has a polydispersity of about 1.1. A preferred ink composition comprises a mixture of about 30% of macromonomer with a molecular weight of about 4,500, about 60 wt% of a mixture of reactive diluents, about 5% of a photoinitiator, and about 5% of phthalocynine blue. This anticipates claims 1, 14-16, and 21. The ink formulation according to Kerr et al can be done using screen-printing or any well-known technique in the art. The examiner contends that this inherently comprises lithography and flexography and then cured with actinic radiation—see page 16-17. Therefore, claims 22-25 are anticipated by the reference.

Allowable Subject Matter

8. Claims 7-13, 18-20 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art teaches the vinyl polymers of claims 4-13, the prior art fails to teach them in radiation curable formulation, such as the one

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defined in claim 1. Nor does the prior art teach flexographic and lithographic processes using the formulation of claim 1.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (703) 305-0505. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0657.

Sanza L McClendon

Examiner

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SMc


NATHAN M. NUTTER
PRIMARY EXAMINER
GROUP 1711